
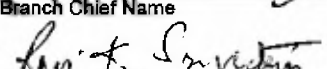
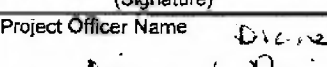
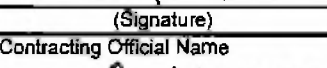


United States Environmental Protection Agency Washington, DC 20460				Work Assignment Number: <input checked="" type="radio"/> Original 0-55 <input type="radio"/> Amendment				
Work Assignment								
Contract Number: EP-C-09-027		Contract Period Base: 04/01/2009 - 03/31/2010 Option Period No. 0		SF Site Name:				
Title of Work Assignment: Development of the Industrial Sector Integrated Solutions (ISIS) Model - US Iron & Steel and Pulp & Paper Modules								
Suggested Source: Arcadis Geraghty & Miller				Specify Section & Paragraph of Contract SOW:				
Purpose: <input checked="" type="radio"/> Work Assignment Initiation <input type="radio"/> Work Assignment Close-Out <input type="radio"/> Work Assignment Amendment <input type="radio"/> Incremental Funding <input type="radio"/> Work Plan Approval				Period of Performance From: 01/06/2010 To: 03/31/2010				
Comments:				LA Category (check one) <input type="radio"/> I Enforcement <input checked="" type="radio"/> II Standard Setting <input type="radio"/> III Technology Development <input type="radio"/> IV Proof of Concept N/A				
Note: To report additional accounting and appropriations data use EPA Form 1900-69A.								
SFO 22 <input type="checkbox"/> Superfund (Max 2)		Accounting and Appropriations Data						
		<input type="checkbox"/> Non-Superfund						
DCN (Max 6)	Budget/FYs (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount	Sites/Project (Max 8)	Cost Org/Code (Max 7)
1								
2								
3								
4								
5								
Authorized Work Assignment Ceiling								
Contract Period:					Cost/Fee		LOE	
Previously Approved		New					0	
This Action							305	
Total							305	
Work Plan / Cost Estimate Approvals								
Contractor WP Dated:				Cost/Fee:		LOE:		
Cumulative Approved:				Cost/Fee:		LOE:		
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Branch Chief Name Ravi Srivastava, Chief, APTB;  1-4-10 (Signature) (Date)				Branch/Mail Code APTB; APTB / E305-01; E305-01 Phone Number (919) 541-3444; (919) 541-3444 Fax Number				
Project Officer Name Diane L Pierce  1/5/10 (Signature) (Date)				Branch/Mail Code Phone Number 919-541-2708 Fax Number				
Contracting Official Name Renita Tyus, CO  1/6/10 (Signature) (Date)				Branch/Mail Code OPD Phone Number (513) 487-2094 Fax Number (513) 487-2109				
Contractor Acknowledgement of Receipt and Approval of Workplan (Signature and Title)						Date		

Title: Development of Industrial Sector Integrated Solutions (ISIS) Model - US Iron & Steel and Pulp & Paper Modules

In the National Academy of Science's 2004 report, "Air Quality Management in the United States," the National Research Council (NRC) recommended to EPA that standard setting, planning and control strategy development be based on integrated assessments that consider multiple pollutants and those integrated assessments be conducted in a comprehensive and coordinated manner. With these recommendations, EPA began to move towards establishing multi-pollutant and sector-based approaches to managing emissions and air quality. These sector-based approaches will require technical and economic analyses on costs and benefits of particular strategies, and coordination of rules that currently regulate sources within facilities. The benefits of multi-pollutant and sector-based analyses and approaches include the ability to identify optimum strategies, considering feasibility, costs, and benefits across all pollutant types – criteria, toxics and others -- while streamlining administrative and compliance complexities and reducing conflicting and redundant requirements.

When possible, market-based emission reduction policies (e.g., cap-and-trade) are known to provide cost-effective reductions, while allowing for flexibilities not found in the traditional regulatory framework. However, development of such policies requires sophisticated analyses of relevant economic and technical factors. Such analyses are not possible without a sophisticated modeling framework. The Air Pollution Prevention and Control Division (APPCD) is developing such a framework, the Industrial Sectors Integrated Solution (ISIS) model, for industrial sectors.

ISIS is a dynamic linear programming model, and its design allows for incorporating multiple industries within a multi-market, multi-product, multi-pollutant, and multi-region emissions abatement framework. Currently, the model is populated with data on the U.S. cement manufacturing industry and efforts are underway to build in the needed data on the U.S. iron & steel and pulp & paper sectors.

This statement of work is intended to describe the work that the contractor shall complete relative to the ISIS model.

Statement of Work

Task 1

The contractor shall develop appropriate quality assurance documentation required by EPA for the development of an ISIS module for the U.S. iron & steel sector. This documentation will be in the form of an appendix to the overall ISIS model quality assurance document, currently under development. Guidance on the development, evaluation, and application of environmental models is available at <http://www.epa.gov/crem/cremlib.html>.

Deliverables

Appropriate quality assurance documentation to be submitted by February 15, 2010.

Task 2

The contractor shall develop appropriate quality assurance documentation required by EPA for the development of an ISIS module for the U.S. pulp & paper sector. This documentation will be in the form of an appendix to the overall ISIS model quality assurance document, currently under development. Guidance on the development, evaluation, and application of environmental models is available at <http://www.epa.gov/crem/cremlib.html>.

Deliverables

Appropriate quality assurance documentation to be submitted by February 15, 2010.

Task 3

The contractor shall work with EPA personnel to provide ISIS model development and operational support for the inclusion of the U.S. iron & steel sector module. All tasks performed by the contractor in this effort will be initiated by the WAM or approved members of the EPA ISIS project team. In completion of this task, the contractor shall provide support for the following:

Task 3.1: Inclusion of air pollution control technology options available within the sector, and modification of the model to include the capability to optimally apply these options to comply with regulatory requirements.

Task 3.2: Modification of the ISIS model to be compatible with industry data and functionality for this sector such that base- and policy-case runs may be performed which predict sector behavior within order-of-magnitude accuracy.

Task 3.3: Development of data and materials for project updates by performing ISIS models runs, modifying model code, and developing necessary documentation as determined by EPA personnel.

This task should be carried out by an individual with in-depth knowledge of the ISIS model coding and operation. Much of this work may necessitate being performed on-site at EPA RTP facilities in order to interact with EPA ISIS model developers and project personnel.

Deliverables

Technical memorandum reflecting current status of the ISIS iron & steel module by March 31, 2010.

Task 4

The contractor shall work with EPA personnel to provide ISIS model development and operational support for the inclusion of the U.S. pulp & paper sector module. All tasks performed by the contractor in this effort will be initiated by the WAM or approved members of the EPA ISIS project team. In completion of this task, the contractor shall provide support for the following:

Task 4.1: Inclusion of air pollution control technology options available within the sector, and modification of the model to include the capability to optimally apply these options to comply with regulatory requirements.

Task 4.2: Modification of the ISIS model to be compatible with industry data and functionality for this sector such that base- and policy-case runs may be performed which predict sector behavior within order-of-magnitude accuracy.

Task 4.3: Development of data and materials for project updates by performing ISIS models runs, modifying model code, and developing necessary documentation as determined by EPA personnel.

This task should be carried out by an individual with in-depth knowledge of the ISIS model coding and operation. Much of this work may necessitate being performed on-site at EPA RTP facilities in order to interact with EPA ISIS model developers and project personnel.

Deliverables

Technical memorandum reflecting current status of the ISIS pulp & paper module by March 31, 2010.